

REMARKS

This responds to the Office Action mailed on April 13, 2004.

Claims 4, 8, 9, 11, 12, and 15-44 are withdrawn; as a result, claims 1-44 are now pending in this application.

Objection to the Specification

The specification was objected to due to informalities. The specification is amended herewith to update the related application information

§112 Rejection of the Claims

Claim 2 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses this rejection and requests the Office to consider the following.

The Amendment, filed on Dec. 22, 2003, rephrased claim 2 with “said first interconnection layer” Accordingly, this rejection was mooted by the Amendment. Withdrawal of the rejection is respectfully requested.

§103 Rejection of the Claims

Claims 1-3, 5-10, 13 and 14 were rejected under 35 USC § 103(a) as being unpatentable over Fillion et al. (U.S. 5,353,498) in view of Shindo et al. (U.S. 5,048,179). Applicant respectfully traverses the rejection and requests the Office to consider the following.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's

disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (M.P.E.P. § 2143 8th Ed, Rev.1).

The Office Action admits that “Fillion et al. fail to explicitly show an encapsulation material adhering said first microelectronic substrate core” (Office Action at page 5). Applicant also believes the following statement by the Office is incorrect: “Fillion et al. ... show a microelectronic substrate 862 ... a first interconnection layer 840, 838 comprising at least one dielectric layer disposed on said first microelectronic substrate core first surface (incorrect) and at least one conductive trace disposed on said at least one dielectric layer (also incorrect)....” (Notations added. Office Action at page 4).

The Office Action cites to Fillion’s “substrate 862” (Office Action at page 4), and incorrectly likens this to Applicant’s substrate core (e.g., claim 1). But Fillion’s substrate 862 is a composite structure that cannot meet the strictures of Applicant’s substrate core in claim 1.

Regarding the admission that “Fillion et al. fail to explicitly show an encapsulation material adhering said first microelectronic substrate core” (Office Action at page 5), Applicant further contends that the combination of Fillion with Shindo presents an impossibility as Shindo’s encapsulation material cannot be located anywhere in Fillion’s structure. Firstly, Applicant’s claimed core 102 is significantly different from Fillion’s structure. Fillion teaches a molded material that by its very nature of formation abuts Fillion’s microelectronic device 832 (FIG. 8(e)), and therefore has no place for an encapsulation material. Secondly, the structure in Fillion that is “on the microelectronic device 832 active surface” is the structure 836, and it does not have a conductive trace (not labeled in FIG. 8(e)) “that is on the structure 836.”

An appeal to Shindo is ineffective to remedy what the Office has admitted is missing in Fillion. As set forth above, the Office has mischaracterized as a structure 836 in Fillion that matches the structure that is taught and claimed in claims 1 and 10. Shindo’s structure includes a trace 88 that is on a layer 86, but layer 86 is not on the active surface of the device 50 as required in the instant claims 1 and 13.

Although the Office has cited reasons to combine Shindo with Fillion, Applicant respectfully contends that the combination fails to teach all the claims’ limitations, specifically those of independent claims 1 and 13. Applicant therefore respectfully asserts that the

combination of Fillion with Shindo can only be reached in this instance by improperly using Applicant's disclosure as a guide. Withdrawal of the rejections is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney John Greaves at 801-278-9171, or the below-signed attorney at (612) 349-9592, to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

QUAT T. VU ET AL.

By their Representatives,

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Date Aug. 13, 2004

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 13th day of August, 2004.

Anne M. Richards

Name

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Signature